

APPLICATION NO. 09/826,118

INVENTION: Wavelet Multi-Resolution Waveforms

INVENTOR: Urbain A. von der Embse

DRAWINGS AND PERFORMANCE DATA



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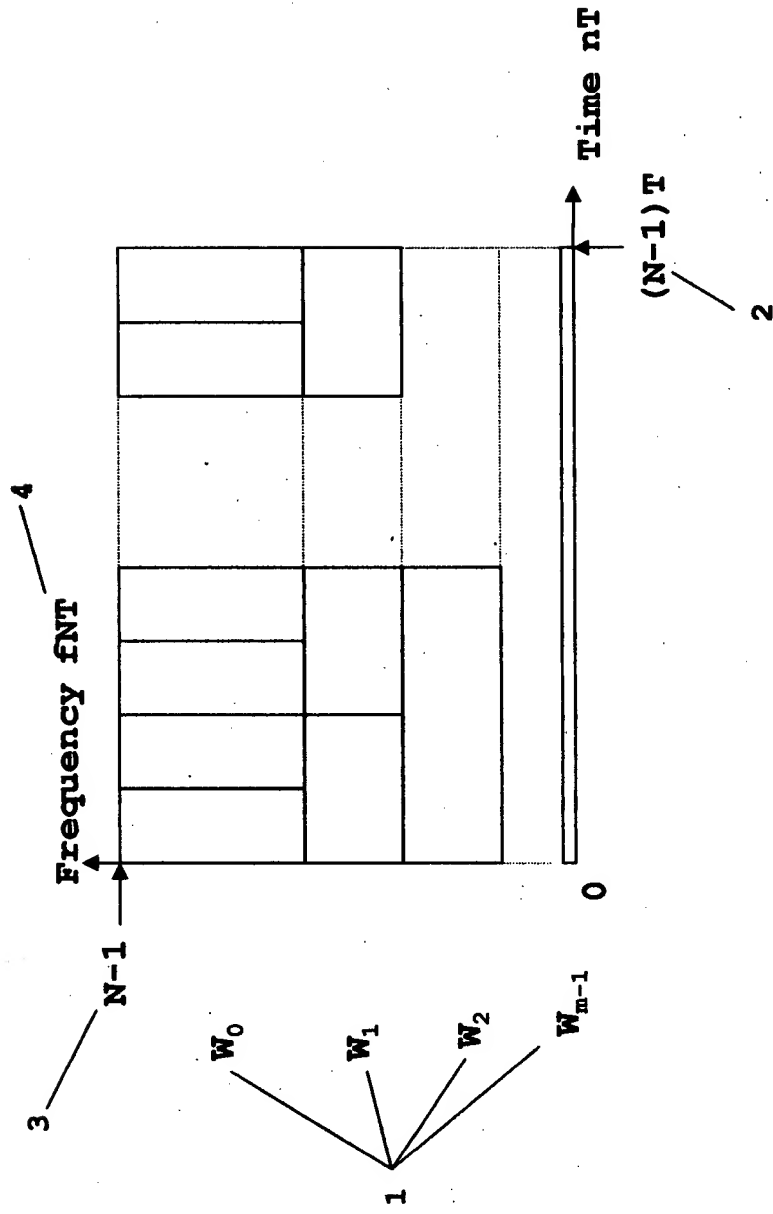
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Currently amended DRAWINGS AND PERFORMANCE DATA

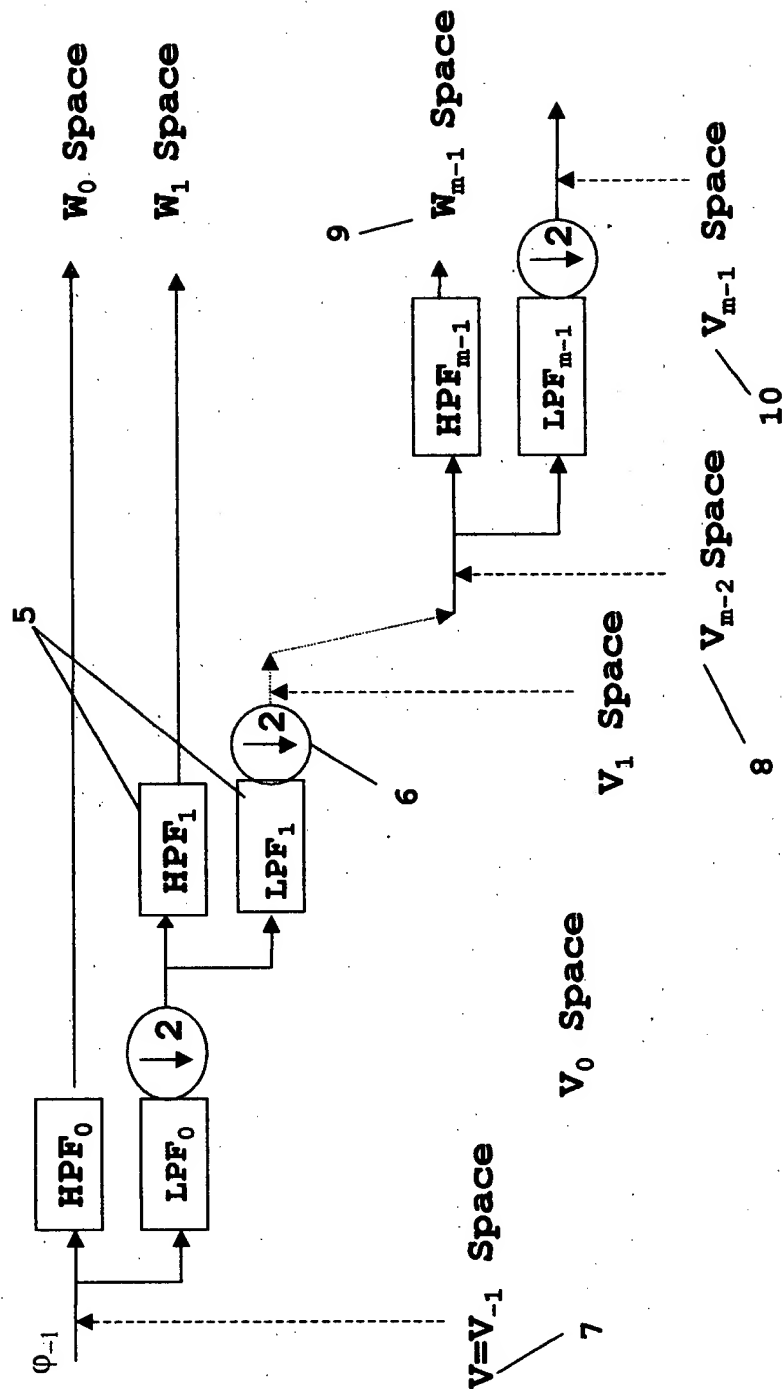
# REPLACEMENT SHEET

FIG. 1 Prior Art: Wavelet Tiling of an N-Point  
Digital t-f Space



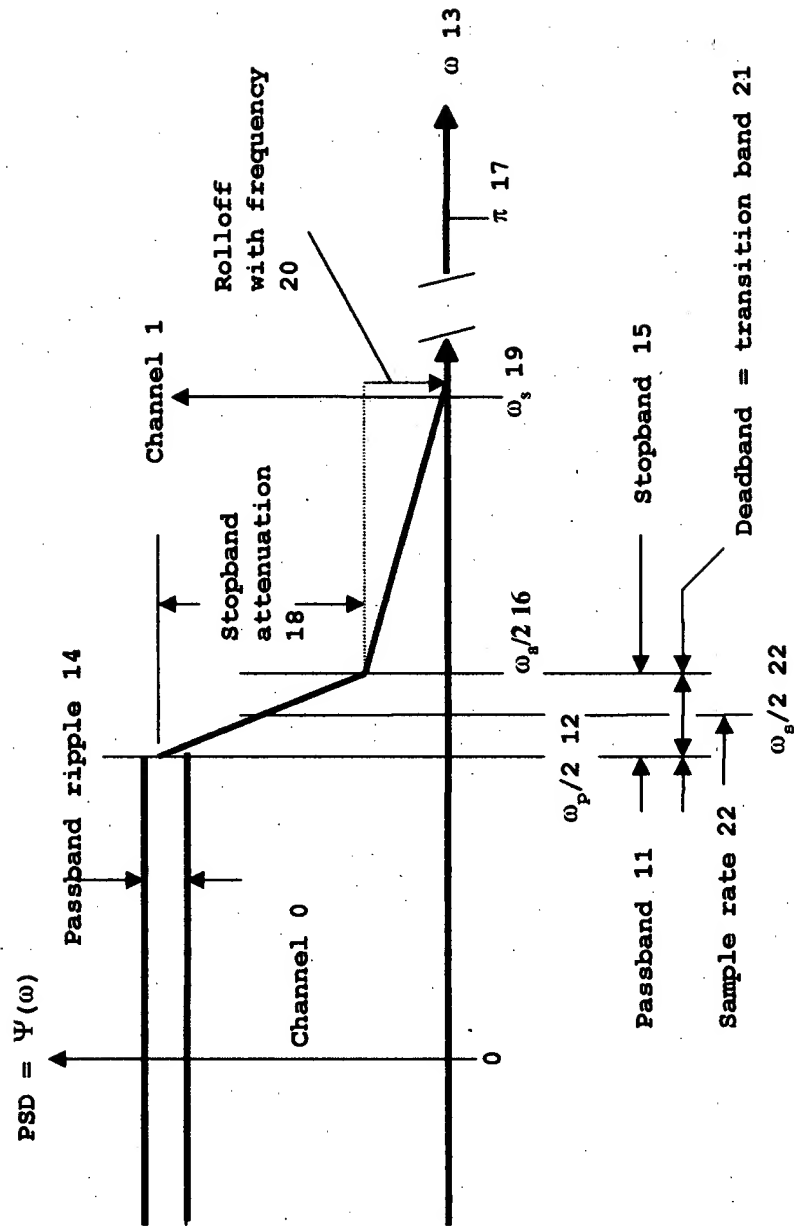
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FIG. 2 Prior Art: Wavelet Iterated Filter Bank  
for Tiling t-f Space in FIG. 1



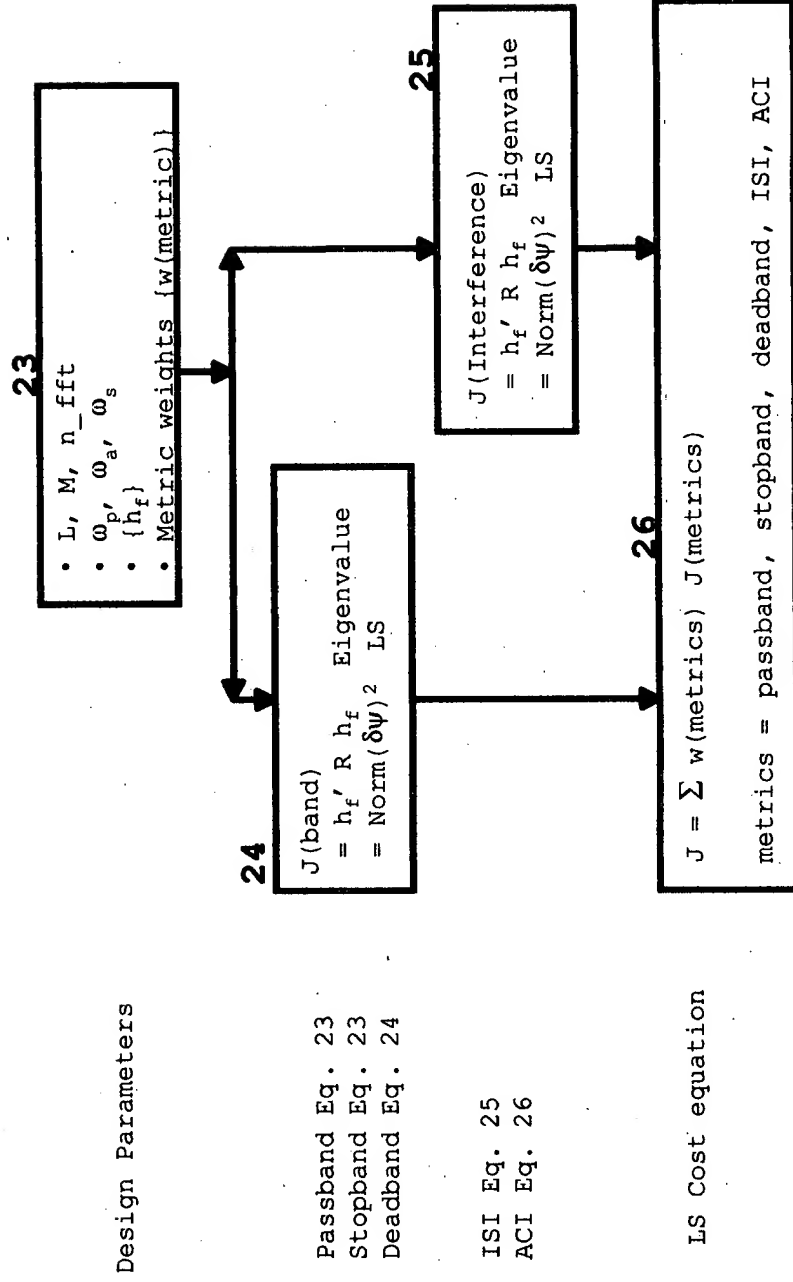
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FIG. 3 PSD Requirements for Communications



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**FIG. 4 LS Metrics and Cost Function for Quadratic and Norm-Squared Error Metrics**



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FIG. 5 LS Recursive Solution Algorithm for Quadratic and Norm-Squared Error Metrics

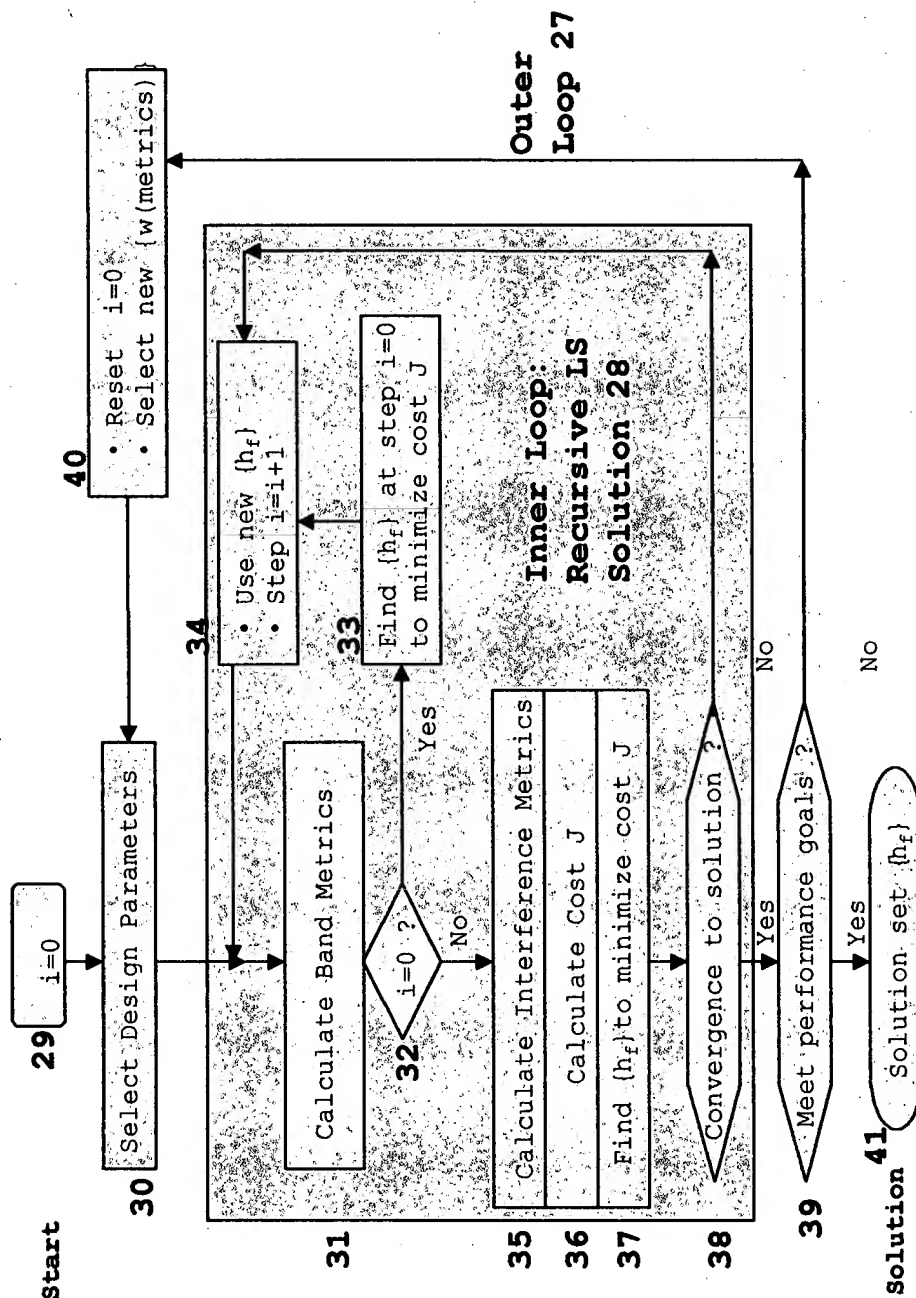
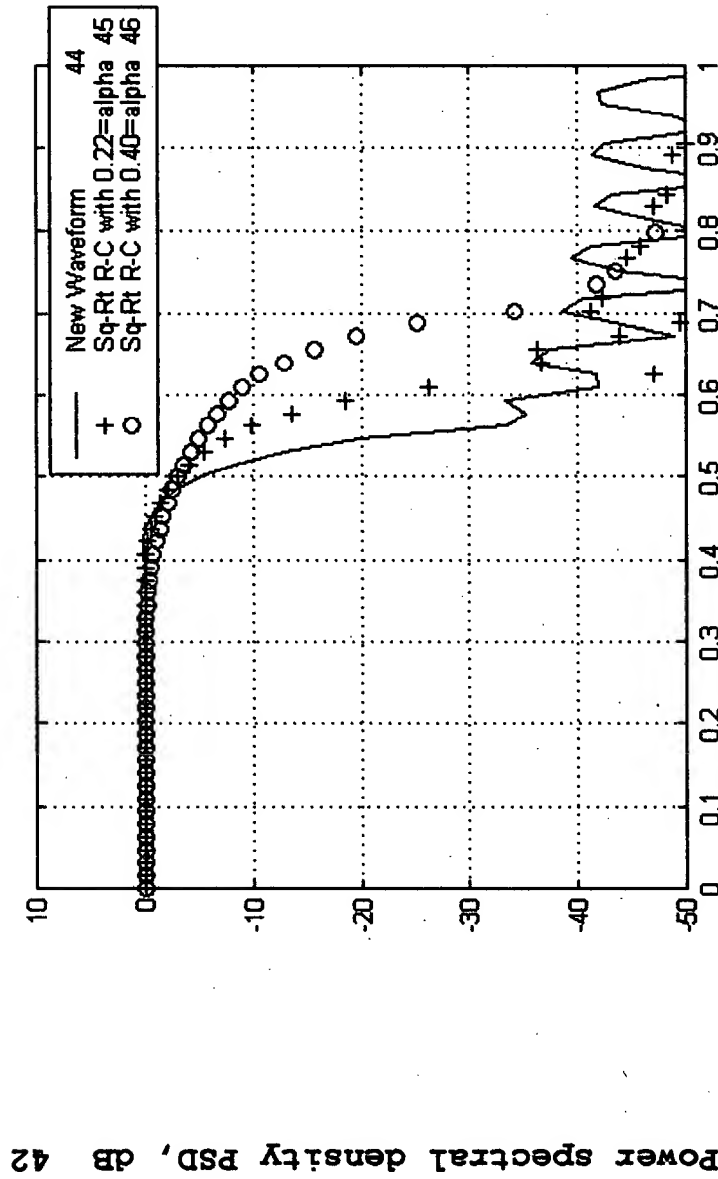


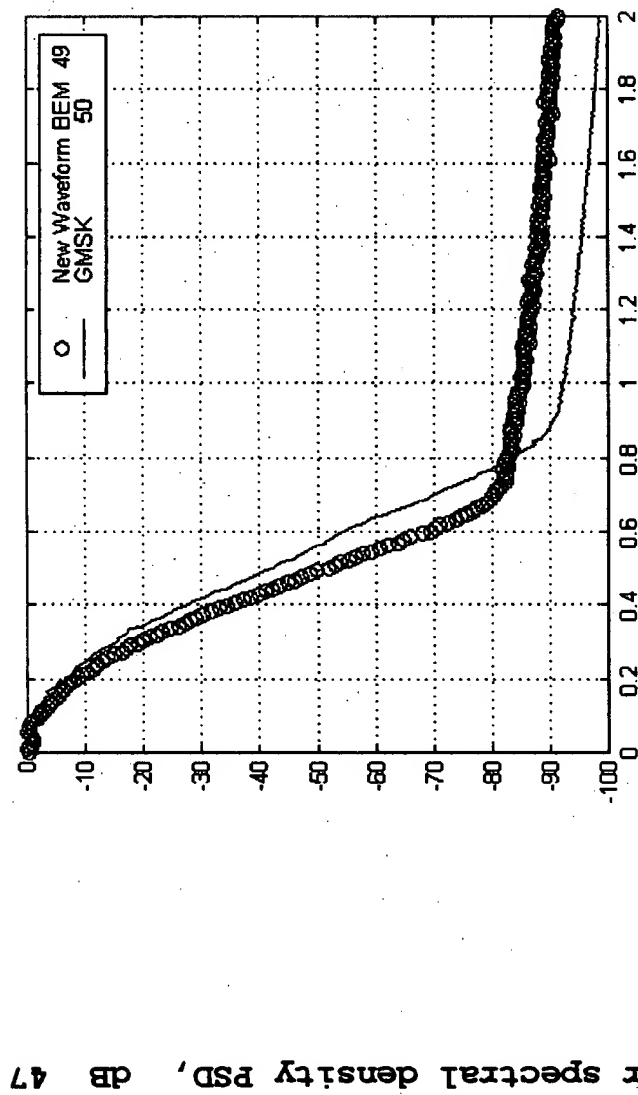
FIG. 6 PSD for New Waveform and Square-Root Raised-Cosine



Normalized frequency, symbol rate 43



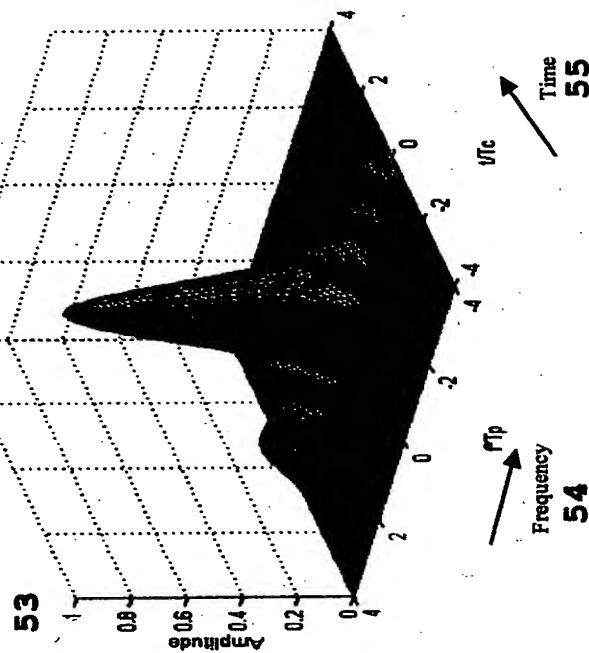
FIG. 7 PSD for New Waveform BEM and GMSK



Normalized frequency, bit rate 48

**FIG. 8 Radar Ambiguity Functions of New Waveform  
and Unweighted Chirp Waveform**

**New Wavelet Ambiguity Function 51**



**Unweighted Chirp Ambiguity Function 52**

